

# Potentials of Forestry Extension Encounters: A Conversation Analysis Approach

Outi Virkkula · Teppo Hujala

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**Abstract** This article assesses co-operative features of forestry advising encounters with an emphasis on their pedagogical positioning. The study argues that only an in-depth analysis can reveal the multifaceted nature of the advisory interaction and provide systematic justifications for extension service enhancement. Authentic video recordings of advisory encounters between a forestry extension advisor (FEA) and family forest owners (FFOs) are scrutinized using the qualitative approach of conversation analysis and the initiation–response–evaluation pedagogical sequence model. Although the actual interplay of the participants was founded on a distinct role differentiation (i.e. teacher–student), situational and contingent variations between formal and informal positioning emerged. The FFOs proved active in making initiatives (e.g. posing questions) and thus influencing the agenda of the meetings, whereas the FEA’s speech turns were mostly used to restore the conventional hierarchical positioning. However, the results show that expert-directed service and customer-orientated services are not mutually exclusive. Effective forestry advisory practice is a rather socially motivated action embodied with talk and other means of communication. Thus the current emphasis on Internet-based services provides only halfway solutions, because virtual guidance lacks many of the interactive elements provided in face-to-face advisory encounters.

**Keywords** Collaboration · Customer service · Forestry advisory · Forest management planning · Institutional interaction

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O. Virkkula (✉)

School of Renewable Natural Resources, Oulu University of Applied Sciences, Kotkantie 1,  
90250 Oulu, Finland  
e-mail: outi.virkkula@oamk.fi

T. Hujala

Vantaa Unit, Finnish Forest Research Institute METLA, P.O. Box 18, 01301 Vantaa, Finland

## Introduction

Traditional, expert-directed advisory practices within small-scale forestry are today criticized as being insufficient to provide versatile owner-driven forest planning aid while socio-economic and demographic changes among family forest owners (FFOs) take place (Hujala 2009; Kueper et al. 2013). Therefore, the overall focus of the advisory development work is now directed towards increasing customer orientation and building new competences among forest management professionals (Wild-Eck et al. 2006; Hokajärvi et al. 2011; Monroe and McDonell 2012). Informal extension practices have been highlighted as complementary means to enhance the empowerment of the customer, and peer learning has shown high potential to strengthen FFOs engagement with forestry both in Europe and in the USA (Karppinen et al. 2011; Ma et al. 2012). A similar kind of approach was found to be favorable in a farmer-directed extension model assessed in Bangladesh (Islam et al. 2011). However, suggested solutions depend highly on the cultural and societal circumstances and yet all models boil down to the grass-roots-level interplay and communication between the advisory service participants.

When aiming at effective and sustainable stewardship of forests, it has been suggested that extension as a practice of knowledge transfer per se from professional foresters to laypersons be replaced with an approach that appreciates the world views of the landowners and that pursues knowledge building as a collaborative endeavor (Vanclay 2004). This approach equates well with forestry extension, which Serbruyns and Luyssaert (2006) define as an informational policy instrument targeting landowners. In the most recent decade, along with the privatization and deregulation of advisory services, forestry advisory practice has increasingly been regarded as an *interactional intervention* that, nevertheless, serves primarily the aims of service providers and not those of customers (Leeuwis 2004; Vanclay 2004). This could be seen as an elementary distortion between the theory and practice of extension work.

In Finland, due to the continuing liberalization of forest legislation, forestry extension is expected to be refocused towards alternative-based services that take greater account of landowners' personal aims and plans (Parviainen and Västilä 2012). In addition to peer learning approaches, recently outlined models of tailored services underline trialogical learning (Hujala et al. 2012), internet-mediated (Eyvindson et al. 2011) or computer-aided planning services (Leskinen et al. 2009; Pykäläinen and Hujala 2012) and interactive services (Hujala et al. 2013). As such, forestry extension practice is adopting an instructional positioning embedded with (pedagogic) goals, although not always explicitly defined or requested. The customer's (landowner's) personal motivation is left to be elaborated upon face to face, and yet the official expectations of the co-operative gains of the encounters are high.

A forestry extension encounter is comparable with various instructional settings also defined by an institutional task such as a classroom (Sinclair and Coulthard 1975), home nursing (Heritage and Sefi 1992), career guidance training (Vehviläinen 1999) and nature conservation guidance (Ljunggren-Bergeå 2007). The above-referenced studies of expert-layperson contexts suggest that the talk-in-interaction

between the participants finally determines how engagement with and learning about forestry is boosted. Forestry extension practice however lacks an in-depth interaction analysis, and in this paper such a contribution is made, both to open a new methodological research line in small-scale forestry and to inform extension developers of important viewpoints to grasp in future work.

The concept of communication is crucial for every advisory encounter. In fact, it has been placed at the hub of rural innovation (Leeuwis 2004). Yet smooth communication is a demanding task for any extension specialist. When successful it generates trust and respect, a sense of belonging to a forest community and of becoming more of a forest owner (Hujala and Tikkanen 2008). By investigating the operational models (i.e. patterns of practical acts) of advisory meetings it is possible to grasp the most influential variables that advance or block joint knowledge construction, because inter-subjectivity—i.e. reciprocal comprehension of the shared social situation—is often maintained with subtle, implicit, complied turn-taking rules. All advisory encounters are institutional and therefore restricted by official conformities (Drew and Heritage 1992; Arminen 2005) meaning that, for instance, expressions of laughter or surprise are not always appropriate for the advisor. However, compared to a very strict formal operating environment (such as a courtroom) the encounters with landowners introduce space for continuous identity negotiations between the participants (Ljunggren-Bergeå 2007). Therefore the roles of participation can vary and the professional forester can occasionally become the layperson of the shared occasion. Various qualities of the interaction finally determine how the conversation takes place, meanings are shared and new knowledge is built (Barron 2003).

The research objective of the study reported here has been to assess the following research questions: (1) What does the systematics of advisory encounters tell us about participants' collaboration?; (2) What kind of pedagogic positioning do these operational models generate; in other words, what kind of role relationships emerge between the forest owner and the advisor?; (3) What kinds of activities are found, and what do they suggest about the specifics of the co-operation?

## Materials and Methods

The research questions are approached from the perspective of conversation analysis (CA), which is today widely acknowledged across sciences focusing on talk-in-interaction of everyday situations. CA defines any standard conversation as systematic and goal-oriented (Sacks et al. 1974), and it stems from ethnomethodology (Garfinkel 1967), underlining that the meaning of an utterance or an expression is dependent on its context of use (Potter 1996). Therefore an understanding of that particular context is needed before claiming anything about the meanings of the words or utterances produced. Furthermore, each utterance is also an activity (e.g. request, demand, instruction or recommendation), a response or an initiation in a wider sequence of talk-in-interaction (Potter 1996). Sequential talk-turns enable conversation participants to mutually understand the shared social

situation and to stay on track with what is happening (Sacks et al. 1974; Schegloff 1992).

Conversation analysis underlines that all social actions, their sequential order and achievements are highly context-sensitive (Schegloff 1992; Arminen 2005). However, the systematics are founded on a specific formal scheme that itself is context-free (e.g. change of speakers occurs, usually one talks at a time, overlapping talk takes place, but is brief, turn order varies; Sacks et al. 1974). Recently the interest in CA has been directed at the *multimodality* of interplay, addressing the fact that the co-ordination of social situations is actually organized on various simultaneously operating means of communication including talk, facial expressions, gestures, body posture, and artifacts (Goodwin 2000; Stivers and Sidnell 2005). Sometimes the encounter can contain anything but talk (Levinson 1992). Regardless, with all these modalities used it is possible '*to systematically recognize the shape and character of what is occurring*' (Goodwin 2000, 1489) in a conversation, whether mundane or institutional.

Approaching forestry advisory encounters with CA is, to the authors' present knowledge, novel. A similar kind of setting has been provided in agricultural research. Ljunggren-Bergeå (2007) studied authentic discussions about nature conservation between a farmer and an advisor and argued that the communicative role of extension is 'ubiquitous'. Fleming and Vanclay (2009) used discourse analysis to elaborate various interpretations of climate change in the Tasmanian agricultural community and emphasized the importance of understanding language when, for instance, facilitating behavioral change through advisory practices. CA-based analysis not only yields rigorous comprehension about the talk-in-interaction of forestry extension, but also provides evidence-based tools for practical development that are applicable for instructional settings of a similar kind. CA enables extension researchers and practitioners to understand how advisory meetings are based on participants' meaning, inference, and action (Drew and Heritage 1992).

### The Initiation, Response and Evaluation Sequence

A three-turn initiation–response–evaluation (IRE) (initiation, response, evaluation) sequence is a well-known interactional form of pedagogical discourse (Arminen 2005; Lee 2007). Traced to the work of Sinclair and Coulthard (1975; also Sinclair and Brazil 1982) about the linguistic aspects of teacher–pupil interaction, it was claimed that a typical exchange of activities in a classroom comprises an initiation by a teacher, a response by a student, and feedback by the teacher to the student's response. Although criticized for employing too limited, pre-fixed and general categories to study complex social realities of talk-in-interaction (Drew and Heritage 1992; Lee 2007), the relevance of the IRE sequence approach has been recognized to (1) elicit the variety of discourses and linguistic actions appearing in a classroom (Nassaji and Wells 2000; Macbeth 2004); (2) enhance problem-based learning (Zemel and Koschmann 2011); or (3) show the multilayer characteristics of asymmetry in clinical discourse (Maynard 1991). Furthermore, the IRE-model has been supported for its flexibility (Arminen 2005).

Scrutinizing the occurrence of IRE sequences in a forestry extension encounter generates valuable information about how mutual understanding develops as a threefold pedagogic cycle. More importantly it can be used to identify the accomplishments of these sequences, i.e. what is made possible or prevented? The third turn in a conversation sequence is considered crucial (Schegloff 1992; Vehviläinen 1999; Zemel and Koschmann 2011), because it evaluates the second turn, which, again, is prompted by the first turn. In evaluative turns questions and recommendations are reformulated (e.g. due to their insufficiency in the first turn), errors put right and views explained (Lee 2007). Third turns are less predictable and more contingent than prior turns and thus can be seen as ‘place holders’ (Lee 2007) for understanding communicative acts of the expert, whether a teacher, a forestry advisor or a doctor.

### Data Collection and Analysis

The data consists of five authentic and video-recorded forestry advisory meetings (total duration 6:15:48) that took place in northern Finland. The overall focus of these encounters was to co-discuss the forest management plan (FMP) compiled by the professional forester. Furthermore, shared comprehension and agreement of the recommendations made (for felling and silviculture operations) and of the overall contents of the FMP was pursued. The prime aim was to motivate the landowner to engage in active forest management. These meetings typically take place a few times during a person’s forest ownership, and thus are embedded with considerable expectations.

One forestry extension advisor (FEA) and six FFOs participated in the encounters, where the researcher video-recorded the sessions and did not interfere with the standard procedure of the meetings. The FFOs were subjectively selected from a planning region in northern Finland to include owners of varying age, occupational backgrounds and level of prior forestry knowledge. The FEA was a professional forest planner, representing a Regional Forestry Centre: a predominant advisory and other service provider within Finnish family forestry. In the encounters studied in this paper the FEA was instructed to act normally following the ordinary advisory guidelines employed in the Forestry Centre.

The analysis of the data comprised various phases. In the very first stage, the NVivo program described by Bazeley (2007) was used to scrutinize the video recordings and to collect conversation sequences of the encounters that embodied potentiality for mutuality. *Mutuality* was found to be crucial in a setting regarded as collaborative (Barron 2000; also Barron 2003), and it is defined as an opportunity to contribute to the ongoing discussion and to be heard when taking an initiative speech turn to share, for instance, a view, an insight or to present a criticism. Those conversation sequences indicating such elements were chosen for further analysis. Correspondingly, those not embodying mutuality and not referring directly to the advisory meeting and its contents were excluded (e.g. offering and accepting more coffee, asking for more light in the room, sharing background information on a person’s ownership).

Altogether 162 such interactional conversation sequences were discovered, varying in duration and dynamics as illustrated in Examples 1 and 2. Subsequently, these sequences were reviewed in detail as IRE cycles. The following indexing protocol formed the basis for categorization: (a) who produced the turn; (b) which of the IRE turns was in question; and (c) what kind of activity occurred (e.g. was the initiation a viewpoint, a question or a suggestion) within the turn. Additionally, the overall topic, the point of the meeting and other specifics (e.g. particular body postures, eye contacts, smiles, difficulties in speech) were recorded.

As the final step of the analysis, rigorous transcriptions were made of those conversation sequences resulting as main categories of each IRE turn by using CA and applying transcript conventions outlined by Jefferson (2004). CA allowed further scrutinizing of the specifics and systematics of talk-in-interaction of each IRE sequence.

## Results

### Initiative as the First Turn

The data showed that all participants made initiatives, although the professional made the most (63.6 %, see Table 1), with a varying number of initiatives occurring between advisory meetings and their participants. When looking at the initiative activity of the FFOs, three sessions (1, 2, 5) stand out as the most active ones. Sessions 3 and 4 engaged quieter owners, who took part and showed an interest

#### Example 1 Indirect expression of authority

[LT5, 01:06:13 – 01:06:21, 8 seconds]

- |        |   |  |
|--------|---|--|
| 01 FEA | <b>ja (.)</b><br>and  |  |
| 02     | <b>tiität [1varmastí sen että se &lt;harventamalla&gt; sitä ei niin[2kö mettää pilata</b><br>as you [1surely know that the <thinning> does not [2like harm the forest |  |
|        | [1((FEA BENDS HEAD))  | [2((FEA GAZES AT FFO, NO EYE CONTACT)) |
| 03     | <b>että sillä niinkö</b><br>that it like  |  |
| 04     | <b>(.)</b>  |  |
| 05     | <b>päinvastoin lisätään sitä puuta siellä "ettäkö"</b><br>quite the contrary increases the wood there "that"  |  |
| 06 FFO | <b>=kyllä (.)</b><br>=yes (.)   |  |
| 07 FEA | <b>[3ajallaan tehhään aina</b><br>[3((when)) it is always done in time  |  |
|        | [3((FEA'S GAZE TURNS TOWARDS THE TABLE))  |  |

Each numbered line contains first an utterance in the original language (bold), its translation to English on the following line, and next, if occurring, meaningful embodied actions (upper case) indexed by numbers inside brackets to show the concurrence of speech and action in relation to the original talk (see elaborated transcript conventions at the end of the paper)

**Example 2** Cautious expression of justification

[LT5, 00:54:34 – 00:55:06, 32 seconds]

- 01 (2.0)  
 02 FEA **.hh ((yskäys)) että että .hh [1nuohan ne ois sillai**  
 .hh ((cough)) well well .hh [1those there would be kind of  
 [1((FEA TOUCHES HIS NECK, BOTH GAZE DOWNWARD))
- 03 **ne sielä meilläkin näkyy .h niinkö sielä**  
 those are the ones that are also .h visible like there
- 04 (2.0)  
 05 **valavontah [2sivula nuo [3taimikot että ne on niinkö**  
 on the monitoring [2page those [3seedling stands over there that are like  
 [2((FEA POINTS WITH RIGHT INDEX FINGER AT THE DOCUMENT))  
 [3((FEA GAZES AT FFO, NO EYE CONTACT))
- 06 (3.0)  
 07 → **[4<kunnostamatta> että niitähän sitte**  
 [4<untended> that they are the ones that  
 [4((FEA'S GAZE RETURNS TO THE TABLE))
- 08 **jossain vaiheessa [5(2.0) jos ei niistä tuu sitä toteutusilmoitusta niin aletaan niitä**  
 at some point [5(2.0) if no implementation notice is sent then they are going to be  
 [5((FEA RUBS HIS NOSE WITH RIGHT HAND, SQUINTS))
- 09 **kyselemään perrään "että"**  
 enquired after "that" ((the))
- 10 (1.0)  
 11 **siirtyy sitte sinne [6tarkastaja- (.) tai sinne sielä tarkastajalistalla sikäli näkyvät sitte jah**  
 issue moves then to the [6inspection- (.) or they will then show up on the inspection list andh  
 [6((FEA TOUCHES HIS LEFT TEMPLE WITH LEFT HAND))
- 12 (3.0)  
 13 **ko ei oo tullu toteutus >ilmoitusta<=**  
 cause no implementation >notice< has been received=  
 14 **=mutta siinä ei ko ne hoitaa kuntoon nii se on [7sitä**  
 =but there is nothing more to it than just to fix them and the issue is then
- 15 FFO: **[7.hh**  
 [7((FEA STARTS REPOSITIONING))
- 16 FEA: **sitä myöten selvä [8(--)**  
 then sorted out
- 17 FFO: **[8]g:o**  
 [8y:əh  
 [8((FFO BENDS FORWARD))
- 18 **[9siihen siihen pitää alkaa panostamaan "tässä"**  
 [9this this is what needs all the attention "here"  
 [9((FEA GAZES FFO, NO EYE CONTACT))

otherwise. The biggest difference in initiation between the professional forester and his customers arose in Session 3, involving an owner who opposed extensive felling, but agreed that his forest was dense and required felling operations.

Various categories of initiatives (i.e. their occurring activities) emerged in all sessions (see Table 2). Initiatives made by the professional concerned mainly two activities, namely viewpoint presenting (e.g. about the state of the property, reasonable forest treatments) and giving a piece of advice (e.g. how to sell timber, carry out regeneration or felling). Making suggestions was the third common of the FEA's initiations and related for instance to the continuation of forest roads and fertilization.

FFOs appeared to be reasonably active speakers compared to participants in similar studies albeit conducted in classrooms (Mehan 1979; Nassaji and Wells

**Table 1** Division of initiatives between forestry advisory meetings and among participants

Forestry advisory meetings	Forestry extension advisor	Relative frequency (%)	Family forest owners	Relative frequency (%)	Total	Relative frequency (%)
Session 1	19	18.5	19	32.2	38	23.5
Session 2	16	15.5	13	22.0	29	17.9
Session 3	28	27.2	6	10.2	34	21.0
Session 4	16	15.5	5	8.5	21	13.0
Session 5	24	23.3	16	27.1	40	24.7
Total	103	100	59	100	162	100
Relative frequency (%)	63.6		36.4			

**Table 2** Categories of initiatives and their division among participants

Initiative categories	Forestry extension advisor	Relative frequency (%)	Family forest owners	Relative frequency (%)	Total	Relative frequency (%)
Viewpoint	38	36.9	20	33.9	58	35.8
Advice	33	32.0	0	0.0	33	20.4
Question	6	5.8	23	39.0	29	17.9
Suggestion	17	16.5	7	11.9	24	14.8
Assessment	6	5.8	5	8.5	11	6.8
Interpretation	1	1.0	4	6.8	5	3.1
Definition	2	1.9	0	0.0	2	1.2
Total	103	100	59	100	162	100
Relative frequency (%)	63.6		36.4			

2000). Initiatives of the FFOs consisted of two main categories: posing questions and presenting a view. Asking a question can be interactively delicate, since it attempts to ‘elicit a particular kind of answer’ (Levinson 1992, 80), and yet it was the most frequent initiative of the FFOs, challenging the FEA to respond. Depending on the forest-owning history, the questions varied from a technical-type of inquiry (who carries out felling or regenerates?) to more specific ones (sufficiency of protection forest, natural regeneration). A similar trend was found in viewpoint taking, produced mostly by the more experienced owners. In contrast to the FFOs’ comparatively straightforward conduct, the FEA showed sensitivity by not making too firm expert-directed inquiries or claims and thus produced his authority of the meeting otherwise. His talk was designed to follow cautiousness and discreet neutrality (Drew and Heritage 1992; Heritage 2004) as shown in the Example 1 below.



The meeting from which example one is derived was held in the office of the Regional Forestry Centre, and the sequence takes place at the end of the meeting as a ‘summary’ (the FEA’s choice of word) of the key observations previously made. The participants are seated quite far from each other; both lean back and look downwards. On lines 1–5 the FEA produces a speech turn about thinning, and it begins with ‘you surely know’. The utterance is addressed directly to the second person singular (you). The assessment of the FFO’s knowledge of forestry is made public and is referred to. The word *surely* indicates the FEA’s assessment of the likelihood of the situation; his stance about what is said (Hakulinen et al. 2004). He presumes that the FFO possesses knowledge of thinning.

When uttering the key word (thinning/harventamalla) the talk slows down and the key word is thus emphasized. Using the Finnish *-malla* structure the FEA describes the way to accomplish growth of trees, but also expresses his value judgment (Hakulinen et al. 2004). The forest estate is not harmed by carrying out thinning, quite the contrary. The display is supported with a stress on the word *increases*. Although expert-dominated, a speech turn transition is offered to the FFO on line 4 (a short pause), but he does not take it. Eventually on line 6 the FFO produces a short dialogue particle (*kyllä/yes*) immediately after the FEA’s turn. Body postures following the speech acts are few, though the FEA bends his head at the beginning of the sequence. No eye contact is made, yet the FEA pursues one when presenting his view on ‘not harming’ on line 2.

### Response as the Second Turn

The second turns of IRE sequences were virtually always produced by the participants and, compared to initiative making, the division between the speakers was reversed: the FFOs gave nearly two-thirds of the responses, and short responses (such as yeah, yes, hmm) dominated overwhelmingly the response categories (i.e. activities, see Table 3). However, the activities between the FFOs and the FEA differed from each other showing that for the FFOs it was strikingly common to produce a short response, a minimum discourse particle, than for the professional

**Table 3** Categories of responses and their division among participants

Response categories	Forestry extension advisor	Relative frequency (%)	Family forest owners	Relative frequency (%)	No response	Total	Relative frequency (%)
Short response	29	48.3	82	82.8	0	111	68.5
Answer	17	28.3	5	5.1	0	22	13.6
Viewpoint	3	5.0	4	4.0	0	7	4.3
Agreement	6	10.0	2	2.0	0	8	4.9
Other	5	8.3	6	6.1	3	14	8.6
Total	60	100	99	100	3	162	100
Relative frequency (%)	37.0		61.1		1.9		

forester, who had more variety of responses. The results also show that a question (Table 2,  $F = 29$ ) is not unambiguously followed by a straight answer ( $F = 22$ ).

Short discourse particles are usually referred to when dealing with short, minimum turn responses. In the present data, short replies related mostly to Finnish utterances *joo*, *mm*, *niin*—all counterparts to English *yeah* (Sorjonen 2001) or to *kyllä* (*yes*). Very short displays of dialogue particles contain various interactional properties in a conversation, such as an emotional stance (e.g. positive, negative, neutral), epistemic (state of knowledge) and other interactional meanings (e.g. closure, compliance for the topic, initiative) (Sorjonen 2001) and yet maintain the reciprocity of the encounter relatively effortlessly. Such a turn is illustrated in Example 1, where the FEA's cautious display embodying a value statement about thinning addresses the FFO directly. A short pause on line 4 constitutes a transition-relevance-place (Sacks et al. 1974), which means that a transfer of speakership is offered from the professional to the FFO, who does not utilize it and the FEA continues reformulating his view. This prompts the FFO to produce a latching and minimum turn *kyllä/yes* on line 6 displaying a strong preferred affiliation with what the FEA has just elaborated. The FFO explicitly agrees with the FEA's stance, which the FEA regards as a sufficient response and changes the topic.

### Evaluation as the Third Turn

The third turns of the IRE sequences were mostly made by the professional forester (73.5 %, see Table 4). His contribution clearly increased with respect to the initiatives he had made and compared to the FFOs' input in the first turns. Though the FFOs displayed just 43 evaluations (26.5 %), altogether evaluative turns showed consistency and were distributed relatively evenly between particular categories both for the FFOs and the FEA. Although the FFOs' 'other' category had a relatively high frequency, it comprised eight different activities and was therefore regarded as insignificant. A similar kind of situational contingency in the occurrence of third-turn categories was found in studies by Nassaji and Wells (2000) and Lee (2007).

**Table 4** Categories of evaluations and their division among participants

Evaluation categories	Forest extension advisor	Relative frequency (%)	Family forest owners	Relative frequency (%)	Total frequency	Relative frequency (%)
Justification	44	37.0	9	20.9	53	32.7
Explanation	31	26.1	6	14.0	37	22.8
Reformulation	16	13.4	8	18.6	24	14.8
Short response	12	10.1	8	18.6	20	12.3
Suggestion	5	4.2	1	2.3	6	3.7
Topic change	4	3.4	1	2.3	5	3.1
Other	7	5.9	10	23.3	17	10.5
Total	119	100	43	100	162	100
Relative frequency (%)	73.5		26.5			

‘Justification’ dominated the third-turn displays of the FEA, accounting for 37.0 % of the total. Justifying turns were defined as giving reasons (to something), and those of the FEA were evenly distributed between his first three initiatives (advice, viewpoint and suggestion, Table 2). ‘Explanation’ was the next most frequently employed evaluative turn of the FEA, linking mostly to the questions presented by the FFOs. In all, the data and transcriptions showed that the FEA was particularly cautious when producing an evaluative turn, as can be seen from the following excerpt (see Example 2) involving the same participants as in Example 1.

The issue being referred to in Example 2 is that reproduction activities (i.e. establishment of new trees) in the forest estate are partly delayed according to the standards of forest law, and the FFO admits that in the very beginning of the encounter. The topic is picked up twice during the meeting, and the issue is delicate for the extension advisor to address. His initiation begins with difficulties. He produces a halting turn (lines 2–3, 5), which his body posture supports. The display consists of numerous fillers (*like, well*) and audible (in-) breathing. The FEA invokes the first person plural (*we*) thus indicating his positioning in the meeting. He represents the supervisory body, which knows what is performed or left undone in the forest. The online monitoring page is mentioned as a means to review the progress in the forest estate.

The FEA points to a specific seedling stand in the document that is about to become exposed to monitoring and, while doing so, gazes at the FFO, pursuing eye contact that is not returned (line 5). The Finnish term *kunnostamatta/untended* is uttered slower than the surrounding speech and is thus marked important (line 7). Subsequently, no immediate response is produced, but very long pauses occur (lines 4, 6), during which a transfer of speakership could emerge. However, the FFO does not speak, and the FEA hurries to produce his evaluative turn (marked as a horizontal arrow on line 7).

Justifications take several utterances (lines 7–9, 11, 13–14, 16) and are accompanied by long pauses (lines 8, 10, 12). In contrast with Example 1, the most delicate displays such as commenting on the neglect of regeneration (lines 5, 7) and not sending the implementation notice (lines 8, 13) are addressed to no one specifically, and the subject reference is left open. Such conduct is common in the Finnish language when the display expresses emotions and perceptions that can affect interlocutors (Helasvuo and Vilkuna 2008). ‘Implementation notice’ is repeated (lines 8, 13), and when displaying it for the first time, it is preceded by a long pause and several body postures take place. Additionally, the FEA refers to an inspection list that for him is problematic to utter (line 11) and the speech turn is embodied, again, with restless movements. The verb *näkyvät/shows* is stressed to underline the transparency of the system. If no notice of an established seedling is sent in due time, the Forestry Centre will be aware of this. Again a relatively long pause follows, and the justifying display gradually finishes. The FEA goes on explaining why the neglected work is shown in the list (line 13) and he repeats *ilimotus/notice* with quickened speech. The FEA rushes to end his long turn and downgrades its seriousness by noting that, though monitored and recorded, the delayed work is not that big an issue when taken care of.

The FFO remains relatively silent and passive during the whole long sequence. Yet, towards the end of the FEA's downgrading display the FFO begins to take a turn (line 15) by indicating it first with body postures, and then finally uttering a minimum discourse particle, *joo/yeah*, followed by a cautious promise. During the 32-second-long sequence no eye contact is made, though the FEA pursues it twice.

## Discussion

The analysis yielded two main findings: (1) IRE categorization showed the variety of linguistic activities and participation appearing in forestry advisory meetings; (2) rigorous CA analysis of the main IRE sequences elaborated the richness and dynamics of the conversations and indicated how these meetings were embedded with an obvious instructional conduct, though shared understanding (i.e. collaboration) was actively pursued. Although differing greatly from a conventional classroom context, the IRE sequences (pedagogic cycle) of the investigated forestry advisory practice turn out to be similar. The overall asymmetrical positioning between the participants found in the data was coherent compared to research of other instructional contexts (Heritage and Sefi 1992; Vehviläinen 1999; Arminen 2005; Zemel and Koschmann 2011): the professional forester held most of the first and third turns to himself, while the customer's part was left primarily to respond like a student. Furthermore, the analysis generated several interesting interactional findings, undoubtedly influencing the co-operative gains of the meetings, which are discussed in the following sections.

First, contrary to classical IRE studies on classroom interplay (Sinclair and Coulthard 1975; Mehan 1979) the FEA displayed very few straightforward questions, while, on the other hand, these were the most common initiatives of the FFOs. The FEA was highly focused on cautiously performing his advising task and role (as shown in Tables 1 and 3, and in Examples 1 and 2). In total the FFOs showed more first-turn activity than has been found in more conventional student-contexts (Vehviläinen 1999; Nassaji and Wells 2000). To present a personal, layperson-wise view (second frequent initiative of the FFOs) in front of an expert calls for courage, and suggests an informal and thus permissive nature of the encounter. Though the professional forester is admittedly aware of the agenda and therefore can control it, e.g. topics and overall progress of the meeting (Vehviläinen 1999), the FEA implicitly gave more floor and a greater role to the FFO to make initiatives and thus have an impact on the agenda. This is a relevant observation and provides evidence to soften the reputation of expert-directed advisory encounters.

Second turns largely rest on the previously produced turn (Lee 2007), which, depending on the context, can delimit or increase response options. A doctor's appointment is a typical example of an encounter embodying a certain questioning strategy that allows less response options for the recipient (Maynard 1991; Heath 2001). Interestingly, in the present data the second turns of the meetings seemed to restore classic and formal institutional IRE positioning. Mostly short responses (yes, yeah) were produced, and, in particular, the FFOs linguistic participation was very limited. It seemed apparent that the expert-wise initiatives of the FEA restricted a

wide scale of responses from the FFOs, who evidently positioned themselves as student-like listeners during the second turns. Hence, instead of making an explicit distinction or definition between formal and informal institutional talk-in-interaction, it can only be claimed that with regards to forestry advisory meetings there appear to occur situational and contingent variations (Lee 2007), or as Macbeth (2004, 705) points out, ‘the organisational domains of conversation are both heterogeneous and concurrent’.

Third turns reassure the inter-subjectivity of any encounter (Schegloff 1992) and distinct institutional conversation from mundane talk-in-interaction (Mehan 1979; Zemel and Koschmann 2011). The feedback i.e. the evaluative turn, is produced otherwise (Nassaji and Wells 2000; Lee 2007). The findings indicated that the third turns of the extension encounters were for the most part delicate and thorough displays of the FEA’s epistemic authority, and thus called for particular linguistic and embodied sensitivity to the context. Even though the meeting is determined by an advising activity, delicacy is needed, since it involves value judgements about the customer’s forest property and often also about his forestry work that has been carried out in the forest. The contribution of the FFOs substantially diminished during the third turns, and the actual collaboration was founded on a distinct role differentiation, which at first appeared only partly institutional but turned out to be relatively conventional. Customer orientation is present, but managed by the professional (Nassaji and Wells 2000).

When applying the IRE sequence model in further studies within small-scale forestry, it will be important first to distinguish and define the focus of interest (mutuality in this study) and then to rigorously examine the conversation data to pick all relevant IRE sequences for in-depth analysis. Whether there is a need to acquire a general understanding of the IRE turns (such as the numerical results in Tables 1, 2, 3 in this study) will depend on the specified research interests. Because analyzing IRE data is deeply qualitative, although allowing for quantification, there is no need to have a defined minimum number of IRE sequences in the analysis. However, to discover and be able to comprehend the variety of communicational means used in the sequences, more than one sequence is recommended to be shown as examples.

## Conclusions

This paper has aimed to show the multifaceted nature of forestry advisory meetings by utilizing CA and an IRE sequence model. The overall results underline how any intended shared understanding is based on a considerate turn-taking design that takes into account various conversational means motivated socially (Hanks 2012; Goodwin 2013). The institutional practice of forestry extension turned out to be comparatively traditional, though embodying much more than just giving and receiving advice. The professional held authority over the discussion and thus confirmed the alleged expert-directed positioning of the service.

On the basis of the results it cannot be argued that participation of the FFOs was significantly prevented. Although presumed, expert-directed service and customer

orientated services are not necessarily mutually exclusive. For instance, the transcriptions showed the FEA using various small interactional means to enhance customer orientation (also Virkkula et al. 2012), thus providing space to break the asymmetric positioning of the encounters—as was also underlined by Maynard (1991) of clinical discourses, or by Ljuggren-Bergeå (2007) of agricultural advising context. Furthermore, the FFOs were relatively active participants in the conversation, implying that the customer has a say in the interactional intervention though it is controlled by the FEA. Due to the nature of extension practice, expert and layperson dichotomy prevails, but if allowed, it is constantly reconstructed by the participants.

Conversation analysis and the IRE sequence model have provided a valuable approach to studying forestry advisory meetings, which appear as a rich coordinated action involving speech, gestures and other modalities. Authentic video recordings allow repeated examination and quantification (Drew and Heritage 1992). The gains from using the applied in-depth approach are manifold, as shown in the analysis. The results underline the potential embedded in face-to-face interaction with regard to shared knowledge construction and learning. It is recommended that these observations be raised, for instance, at the training events of forestry extension practitioners, and that practitioners should be encouraged to pay attention to negotiating roles and acknowledge competences when interacting with clients. However, each IRE category awakes further research questions. For instance, the initiative activity of the FFOs and its actual impact on the agenda and on the extension policy requires more scrutinizing. What prompts initiatives and how are they responded to will shed light on the less known positioning and deepen the common understanding of the customer's role in institutional encounters, processes of forestry advisory practice and its differences to other instructional contexts.

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## Appendix: Transcript Conventions

Based on Jefferson (2004, 24–31).

Yes	contrastive emphasis or stress
[	concurrence of speech and action in relation to the original talk (indexed by numbers inside brackets)
(.)	micro-pause
(1.0)	length of silence in approximate seconds
=	no break or gap between or within turns
<yes>	talk between the arrows is slowed down
>yes<	talk between the arrows is speeded up
ye:s	stretching of sound
°yes°	softer sounds than surrounding talk
.hh	audible in-breath
Hh	audible outbreath

ye- word is cut off  
 (–) untranscribable words  
 ((cough)) transcriber's descriptions

## References

- Arminen I (2005) Institutional interaction. Studies of talk at work. Ashgate Publishing, Aldershot
- Barron B (2000) Achieving co-ordination in collaborative problem-solving groups. *J Learn Sci* 9(4):403–436. doi:[10.1207/S15327809JLS0904\\_2](https://doi.org/10.1207/S15327809JLS0904_2)
- Barron B (2003) When smart groups fail. *J Learn Sci* 12(3):307–359. doi:[10.1207/S15327809JLS1203\\_1](https://doi.org/10.1207/S15327809JLS1203_1)
- Bazeley P (2007) Qualitative data analysis with NVivo, 2nd edn. Sage, London
- Drew P, Heritage J (1992) Analysing talk at work—an introduction. In: Drew P, Heritage J (eds) Talk at work. Interaction in institutional settings. Cambridge University Press, Cambridge, pp 3–65
- Eyvindson K, Kurttila M, Hujala T, Salminen O (2011) An internet-supported planning approach for joint ownership forest holdings. *Small-scale Forestry* 10(1):1–17. doi:[10.1007/s11842-010-9123-1](https://doi.org/10.1007/s11842-010-9123-1)
- Fleming A, Vanclay F (2009) Using discourse analysis to improve extension practice. *Ext Farming Syst J* 5(1):1–10. [http://www.csu.edu.au/\\_data/assets/pdf\\_file/0005/109562/EFS\\_Journal\\_v05\\_n01\\_01\\_Fleming\\_and\\_Vanclay.pdf](http://www.csu.edu.au/_data/assets/pdf_file/0005/109562/EFS_Journal_v05_n01_01_Fleming_and_Vanclay.pdf). Accessed 10 July 2013
- Garfinkel H (1967) Studies in ethnomethodology. Englewood Cliffs, New Jersey
- Goodwin C (2000) Action and embodiment within situated human interaction. *J Pragmat* 32(19):1489–1522. doi:[10.1016/S0378-2166\(99\)00096-X](https://doi.org/10.1016/S0378-2166(99)00096-X)
- Goodwin C (2013) The co-operative, transformative organization of human action and knowledge. *J Pragmat* 46(1):8–23. doi:[10.1016/j.pragma.2012.09.003](https://doi.org/10.1016/j.pragma.2012.09.003)
- Hakulinen A, Vilkkumä M, Korhonen R, Koivisto V, Heinonen TR, Alho I (2004) Iso suomen kielioppi [*Comprehensive Finnish Grammar*] Helsinki, Suomalaisen Kirjallisuuden Seura. <http://scripta.kotus.fi/visk> Accessed 14 Feb 2013
- Hanks WF (2012) Modalities of participation. *J Pragmat* 44(5):563–565. doi:[10.1016/j.pragma.2012.03.011](https://doi.org/10.1016/j.pragma.2012.03.011)
- Heath C (2001) The delivery and reception of diagnosis in the general-practice consultation. In: Drew P, Heritage J (eds) Talk at work. Interaction in institutional settings. Cambridge University Press, Cambridge, pp 235–267
- Helasvuo M-L, Vilkkumä M (2008) Impersonal is personal: Finnish perspectives. *Trans Philol Soc* 106(2):216–245. doi:[10.1111/j.1467-968X.2008.00208.x](https://doi.org/10.1111/j.1467-968X.2008.00208.x)
- Heritage J (2004) Conversation analysis and institutional talk. In: Silverman D (ed) Qualitative research. Theory, method and practice. SAGE, London, pp 222–246
- Heritage J, Sefi S (1992) Dilemmas of advice: aspects of the delivery and reception of advice in interactions between health visitors and first-time mothers. In: Drew P, Heritage J (eds) Talk at work. Interaction in institutional settings. Cambridge University Press, Cambridge, pp 359–417
- Hokajärvi R, Hujala T, Tikkanen J (2011) Change in forest planner's advisory role. *Scand J For Res* 26(5):466–476. doi:[10.1080/02827581.2011.579996](https://doi.org/10.1080/02827581.2011.579996)
- Hujala T (2009) Owner-driven decision support in holding-specific forest planning. *Dissertationes Forestales* 85, University of Helsinki
- Hujala T, Tikkanen J (2008) Boosters of and barriers to smooth communication in family forest owners' decision-making. *Scand J For Res* 23(5):466–477. doi:[10.1080/02827580802334209](https://doi.org/10.1080/02827580802334209)
- Hujala T, Höglund H, Mehtälä L, Pykäläinen J (2012) Trialogical learning—a concept for enhancing interactive forest planning. In: Meyer SR (ed) Conference Proceedings, IUFR0 3.08.00 Small-Scale Forestry Conference 2012: Science for Solutions. Family Forest Research Center, Amherst, MA. pp 58–63
- Hujala T, Kurttila M, Karppinen H (2013) Customer segments among family forest owners: combining ownership objectives and decision-making styles. *Small-Scale For* 12(3):335–351. doi:[10.1007/s11842-012-9215-1](https://doi.org/10.1007/s11842-012-9215-1)
- Islam MM, Gray D, Reid J, Kemp P (2011) Developing sustainable farmer-led extension groups: lessons from a Bangladeshi case study. *J Agric Edu Ext* 17(5):425–443. doi:[10.1080/1389224X.2011.596658](https://doi.org/10.1080/1389224X.2011.596658)



- Jefferson G (2004) Glossary of transcript symbols with an introduction. In: Lerner GH (ed) *Conversation analysis: studies from the first generation*. John Benjamins, Amsterdam, pp 13–31
- Karppinen H, Hujala T, Virkkula O (eds) (2011) Recent advances in landowner extension. *Proceedings of the IUFRO 3.08 Symposium with a special theme of peer-to-peer learning among landowners*, 3–5 April, Kuusamo, Finland. <http://www.metla.fi/julkaisut/workingpapers/2011/mwp193.htm>. Accessed 14 Feb 2013
- Kueper AM, Sagor ES, Becker DR (2013) Learning from landowners: examining the role of peer exchange in private landowner outreach through landowner networks. *Soc Nat Resour* 0:1–19. doi:10.1080/08941920.2012.722748
- Lee Y (2007) Third turn position in teacher talk: contingency and the work of teaching. *J Pragmat* 39(1):180–206. doi:10.1016/j.pragma.2006.02.004
- Leeuwis C (2004) *Communication for rural innovation. Rethinking agricultural extension*. Blackwell Science, Oxford
- Leskinen P, Hujala T, Tikkanen J et al (2009) Adaptive decision analysis in forest management planning. *For Sci* 55(2):95–108
- Levinson SC (1992) Activity types and language. In: Drew P, Heritage J (eds) *Talk at work. Interaction in institutional settings*. Cambridge University Press, Cambridge, pp 66–100
- Ljunggren-Bergeå H (2007) *Negotiating fences. Interaction in advisory encounters for nature conservation*. Dissertation, Swedish University of Agricultural Sciences
- Ma Z, Kittredge DB, Catanzaro P (2012) Challenging the traditional forestry extension model: insights from the woods forum program in Massachusetts. *Small Scale For* 11(1):87–100. doi:10.1007/s11842-011-9170-2
- Macbeth D (2004) The relevance of repair for classroom correction. *Lang Soc* 33(5):703–736. doi:10.1017/S0047404504045038
- Maynard D (1991) On the interactional and institutional bases of asymmetry in clinical discourse. *Am J Sociol* 92(2):448–495. <http://www.jstor.org/stable/2781383> Accessed 19 February 2013
- Mehan H (1979) *Learning lessons: social organisation in the classroom*. Harvard University Press, Cambridge
- Monroe MC, McDonnell L (2012) Flexible training program builds capacity for diverse challenges. *J Ext* 50(2), Article Number: 5FEA4
- Nassaji H, Wells G (2000) What's the use of 'Triadic dialogue'? an investigation of teacher-student interaction. *Appl Linguist* 21(3):376–406. doi:10.1093/applin/21.3.376
- Parviainen J, Västilä S (2012) Legal framework and legislation. In: Parviainen J, Västilä S (eds.) *State of Finland's forests 2012 based on the criteria and indicators of sustainable forest management*. Updated html version of 'State of Finnish Forests 2011', Publications of the Ministry of Agriculture and Forestry 5a (95 p.). Ministry of Agriculture and Forestry & Finnish Forest Research Institute (Metla). <http://www.metla.fi/metinfo/sustainability/SF-2-legal-framework.htm>. Accessed 02 Dec 2013
- Potter J (1996) *Representing reality. Discourse, rhetoric and social construction*. Sage Publications, London
- Pykäläinen J, Hujala T (2012) Conversational versus computer-aided forest planning service. In: Meyer SR (ed) *Conference Proceedings, IUFRO 3.08.00 Small-Scale Forestry Conference 2012: Science for Solutions*. Family Forest Research Center, Amherst, MA. pp 149–153
- Sacks H, Schegloff EA, Jefferson G (1974) The simplest systematics for the organisation of turn-taking for conversation. *Language* 50(4), Part 1:696–735. <http://www.jstor.org/stable/412243>. Accessed 19 Feb 2013
- Schegloff E (1992) Repair after next turn: the last structurally provided defence of intersubjectivity in conversation. *Am J Sociol* 97(5):1295–1345. <http://www.jstor.org/stable/2781417>. Accessed 19 Feb 2013
- Serbruyns I, Luyssaert S (2006) Acceptance of sticks, carrots and sermons as policy instruments for directing forest management. *For Policy Econ* 9(1):285–296. doi:10.1016/j.forpol.2005.06.012
- Sinclair JMH, Brazil D (1982) *Teacher talk*. Oxford University Press, Oxford
- Sinclair JMH, Coulthard RM (1975) *Towards an analysis of discourse. The English used by teachers and pupils*. Oxford University Press, Oxford
- Sorjonen ML (2001) *Responding in conversation: a study of response particles in Finnish*. John Benjamins Publishing Co, Amsterdam
- Stivers T, Sidnell J (2005) Multimodal interaction. *Semiotica* 156(1/4):1–20



- Vancley F (2004) Social principles for agricultural extension to assist in the promotion of natural resource management. *Aust J Exp Agr* 44(3):213–222. doi:[10.1071/EA02139](https://doi.org/10.1071/EA02139)
- Vehviläinen S (1999) Structures of counselling interaction: a conversation analytic study of counselling encounters in career guidance training. Dissertation, University of Helsinki
- Virkkula O, Hujala T, Hokajärvi R (2012) Asiakaslähtöisyyden ilmeneminen metsäneuvontakeskuksessa. [Emergence of customer-orientation in forestry advising discussion]. In: Tynjälä P (ed) *Oppiminen ajassa—kasvatus tulevaisuuteen*. [Learning in time-education for the future]. Suomen kasvatustieteellinen seura. Kasvatusalan tutkimuksia 61 (in Finnish)
- Wild-Eck S, Zimmermann W, Schmithüsen F (2006) Extension for private forest owners: insights from a representative opinion poll in Switzerland. *Small-scale For Econ Manag Policy* 5(2):161–174. doi:[10.1007/s11842-006-0008-2](https://doi.org/10.1007/s11842-006-0008-2)
- Zemel A, Koschmann T (2011) Pursuing a question: reinitiating IRE sequences as a method for instruction. *J Pragmat* 43(2):474–488. doi:[10.1016/j.pragma.2010.08.022](https://doi.org/10.1016/j.pragma.2010.08.022)